

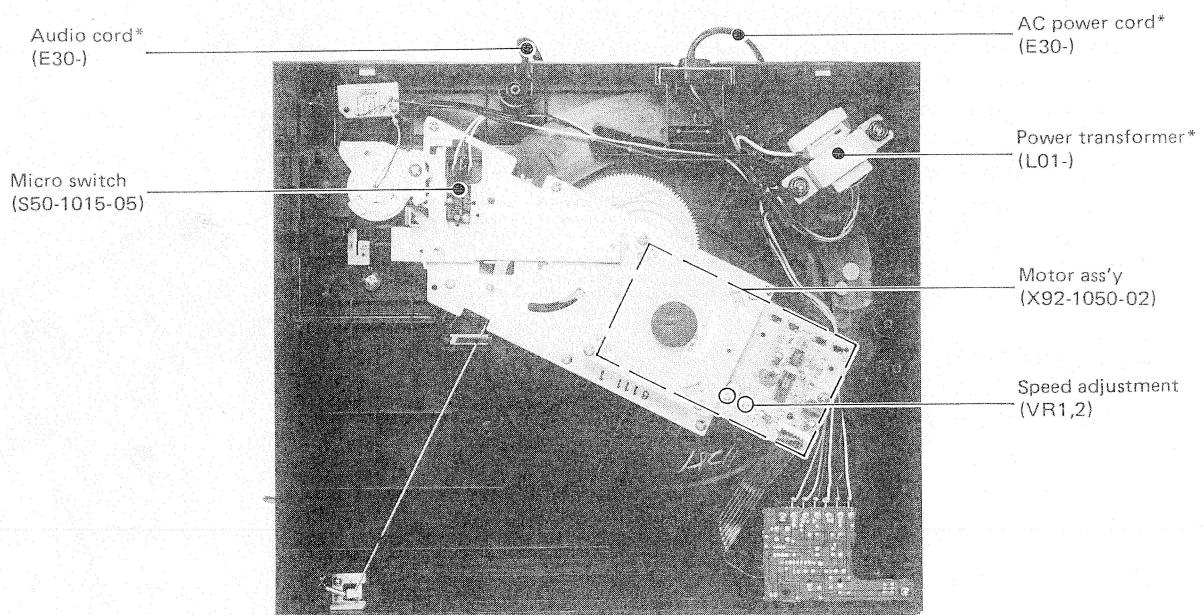
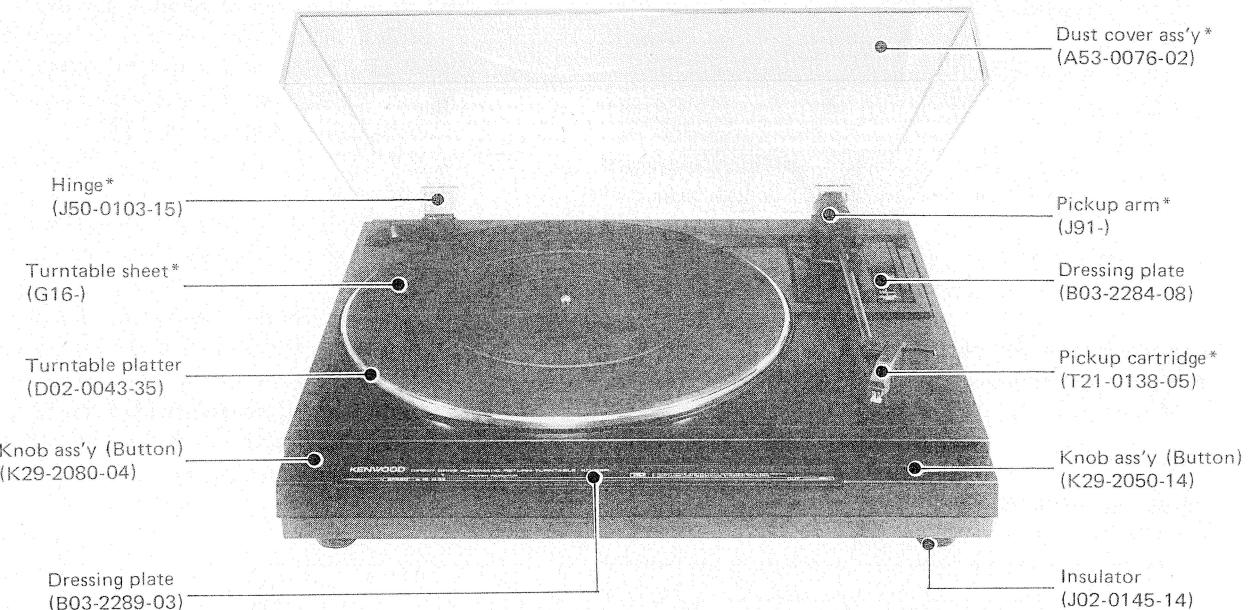
DIRECT DRIVE AUTOMATIC RETURN TURNTABLE

**KD-56R**

SERVICE MANUAL

**KENWOOD**

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B51-3220-00 (O) 2170



\*Refer to parts list on page 8.  
Photo is KD-56R.

## ADJUSTMENT/REGLAGE/ABGLEICH

## ADJUSTMENT

## Stylus height adjustment

- (1) Loosen the lifter screw **1**
- (2) Adjust the vertical position of the lifter so that the stylus is positioned at an appropriate height (8 m/m).

## Auto-return position adjustment

- (1) Set a screwdriver as shown Fig. 1. Turn it counter-clockwise to shift the auto-return position outward, and vice versa. **2**
- (2) When using test record (W05-0036-00), perform the following.
  - (a) The auto-return mechanism should not operate until the count of 21 is reached on the latter half of the side B.
  - (b) The auto-return mechanism should operate between the counts of 1 and 4 on the side A.

## Speed adjustment (45 rpm, 33 1/3 rpm)

- (1) Adjust the trimming pot (VR1,2) on the PC board. (Refer to internal view on page 1).

## REGLAGE

## Réglage de la hauteur de pointe de lecture

- (1) D'esserrer la vis de lève-bras **1**
- (2) Ajuster la position verticale du lève-bras de façon à ce que la pointe de lecture soit placée sur la hauteur appropriée (8 m/m).

## Réglage de la position de retour automatique

- (1) Placer le tournevis de la manière indiquée Fig. 1. La tourner vers la gauche (sage de la horloge de jeton) afin de centrer la position de retour automatique vers le dehors et vice-versa. **2**
- (2) Lorsqu'on utilise le disque d'essai (W05-0036-00) procéder de la façon suivante.
  - (a) Le mécanisme de retour automatique ne doit pas fonctionner jusqu'à ce que le numéro 21 soit atteint sur la dernière partie de la B face.
  - (b) Le mécanisme de retour automatique doit fonctionner entre les numéros 1 et 4 de la A face.

## Réglage de vitesse (45 t, 33 1/3 t)

- (1) Ajuster la résistance trimmer (VR1,2) du circuit imprimé. (Voir page de couverture).

## ABGLEICH

## Höhe Abgleichen der Nadeln

- (1) Die Lifthebelschraube **1** lösen.
- (2) Die senkrechte Position des Lifthebels so justieren, daß sich die Nadel auf der richtigen Höhe befindet (8 m/m).

## Justieren der Position der Rückführautomatik

- (1) Einen Schraubendreher wie Fig. 1 gezeigt einsetzen. Diesen nach links (Weisen der Uhr spieltmarkes) drehen, um die Position der Rückführautomatik nach äußere zu verschieben, und umgekehrt **2**
- (2) Bei Verwendung der Testplatte (W05-0036-00) wie folgt verfahren.
  - (a) Die Rückführautomatik sollte erst in Funktion treten, wenn die Zahl 21 auf der zweiten Hälfte der Seite-B erreicht wird.
  - (b) Auf der Seite-A sollte die Rückführautomatik zwischen den Zahlen 1 und 4 in Funktion treten.

## Abgleichen der Geschwindigkeiten (45 rpm, 33 1/3 rpm)

- (1) Den Justierwiderstand (VR1,2) auf der Leiterplatte einstellen. (Siehe Umschlagseite).

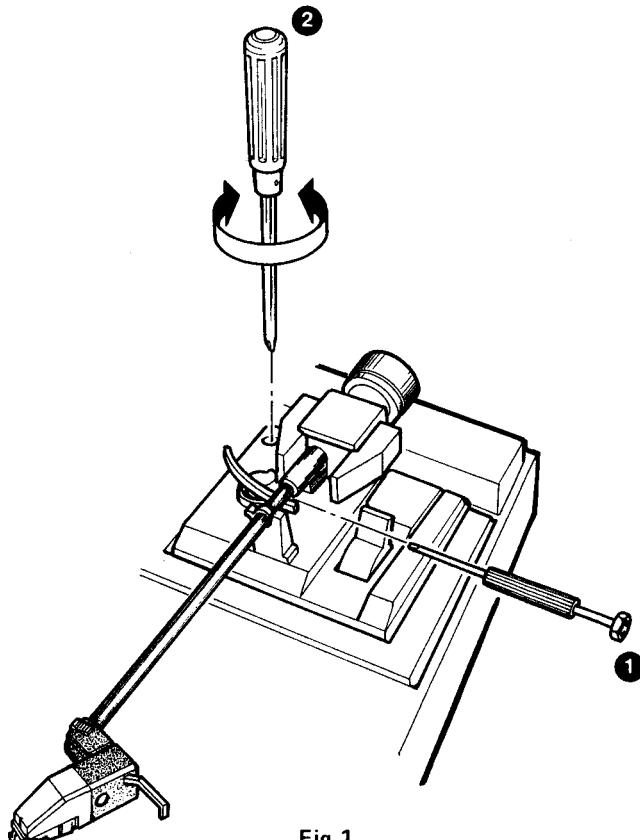
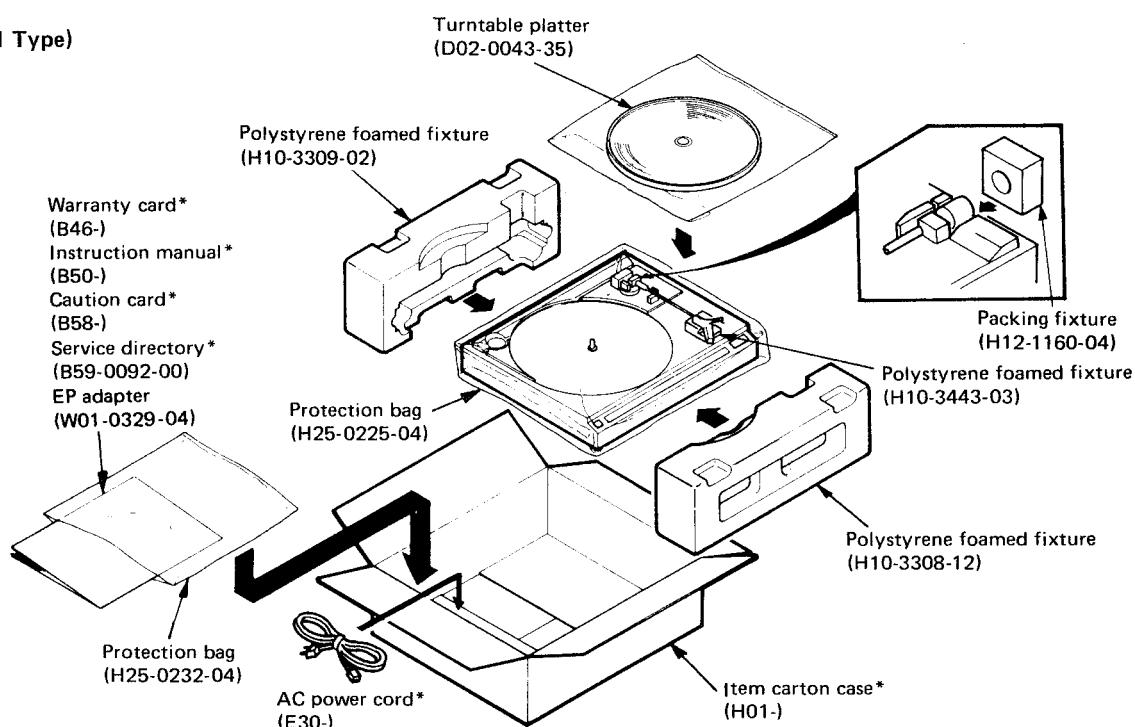


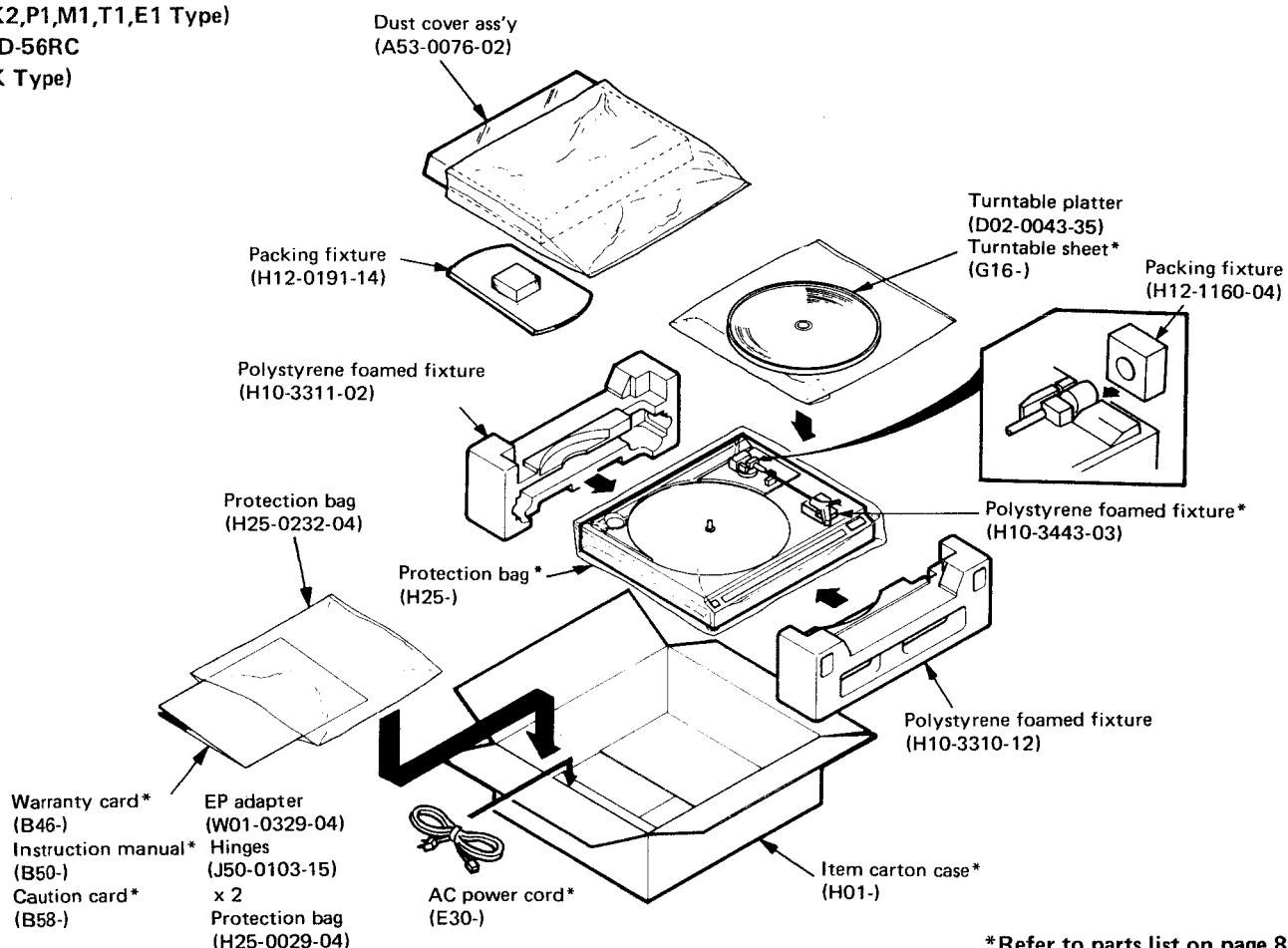
Fig. 1

## PACKING

**KD-56RCL**  
(K1,U1,E1 Type)



**KD-56R**  
(K2,P1,M1,T1,E1 Type)  
**KD-56RC**  
(K Type)



\*Refer to parts list on page 8.

A

B

6

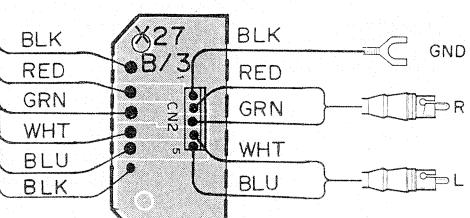
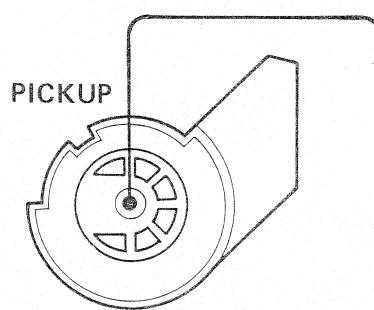
D

七

**PC BOARD**

X29-1560-01

	B	C	E
Q1	1V	14.7V	0.2–0.4V
Q3, Q4	0V	15V	0V
Q5, Q6	0V	-15V	0V



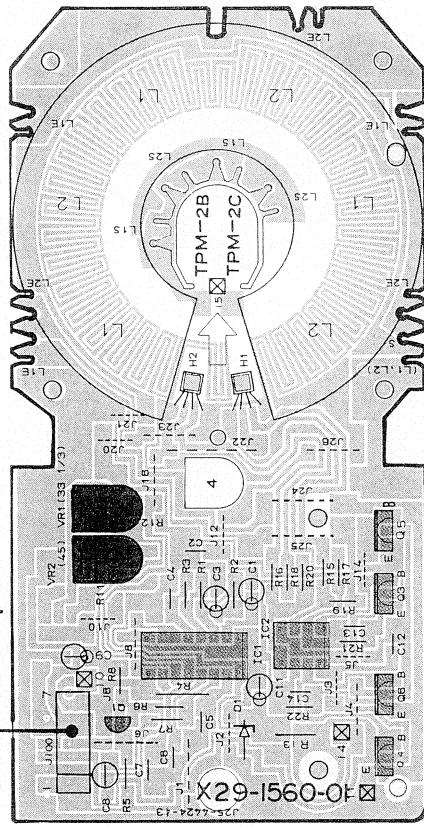
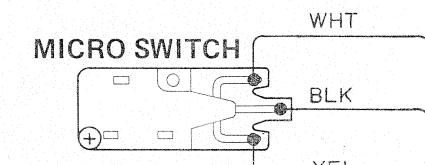
C1

1	0V
2-5	1.3V
6	2.7V
7-10	-
11	2.7V

12	1.5V
13	2.3V
14	2.5V
15	1.0V
16	5V

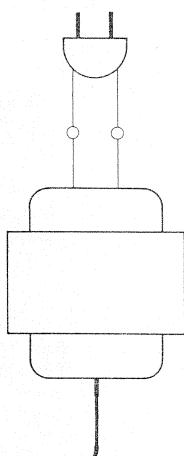
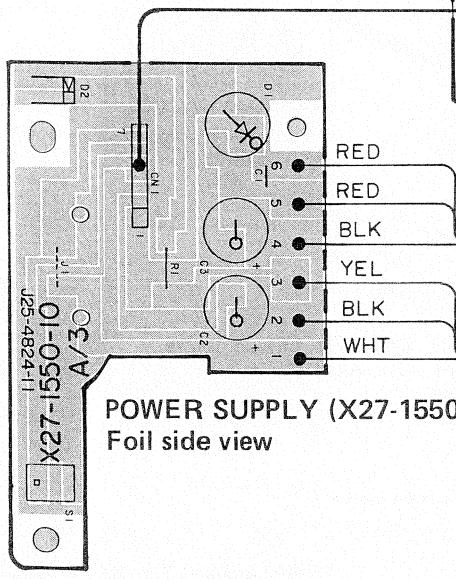
C2

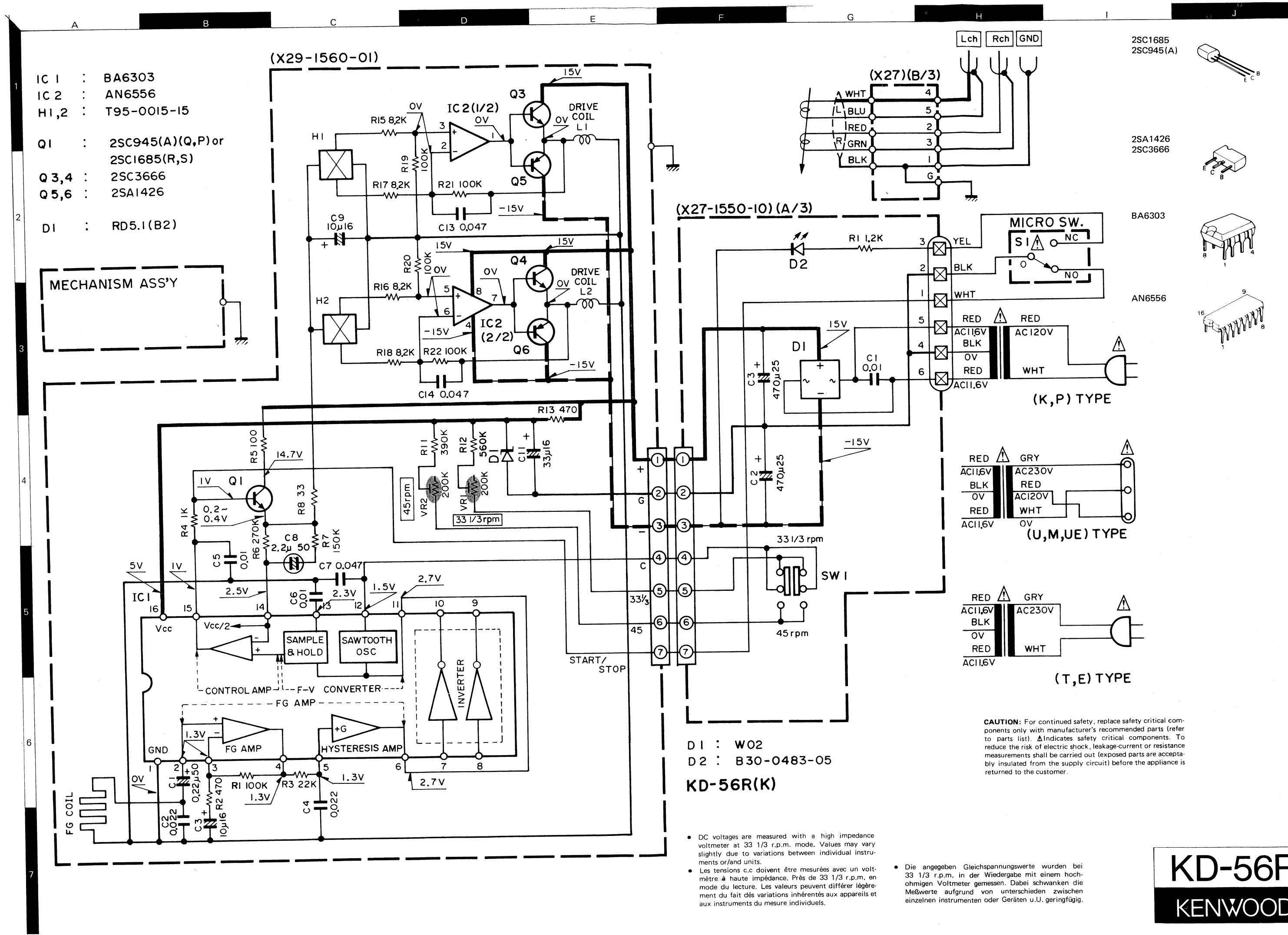
1-3	0V
4	-15V
5-7	0V
8	15V



**FRONT**

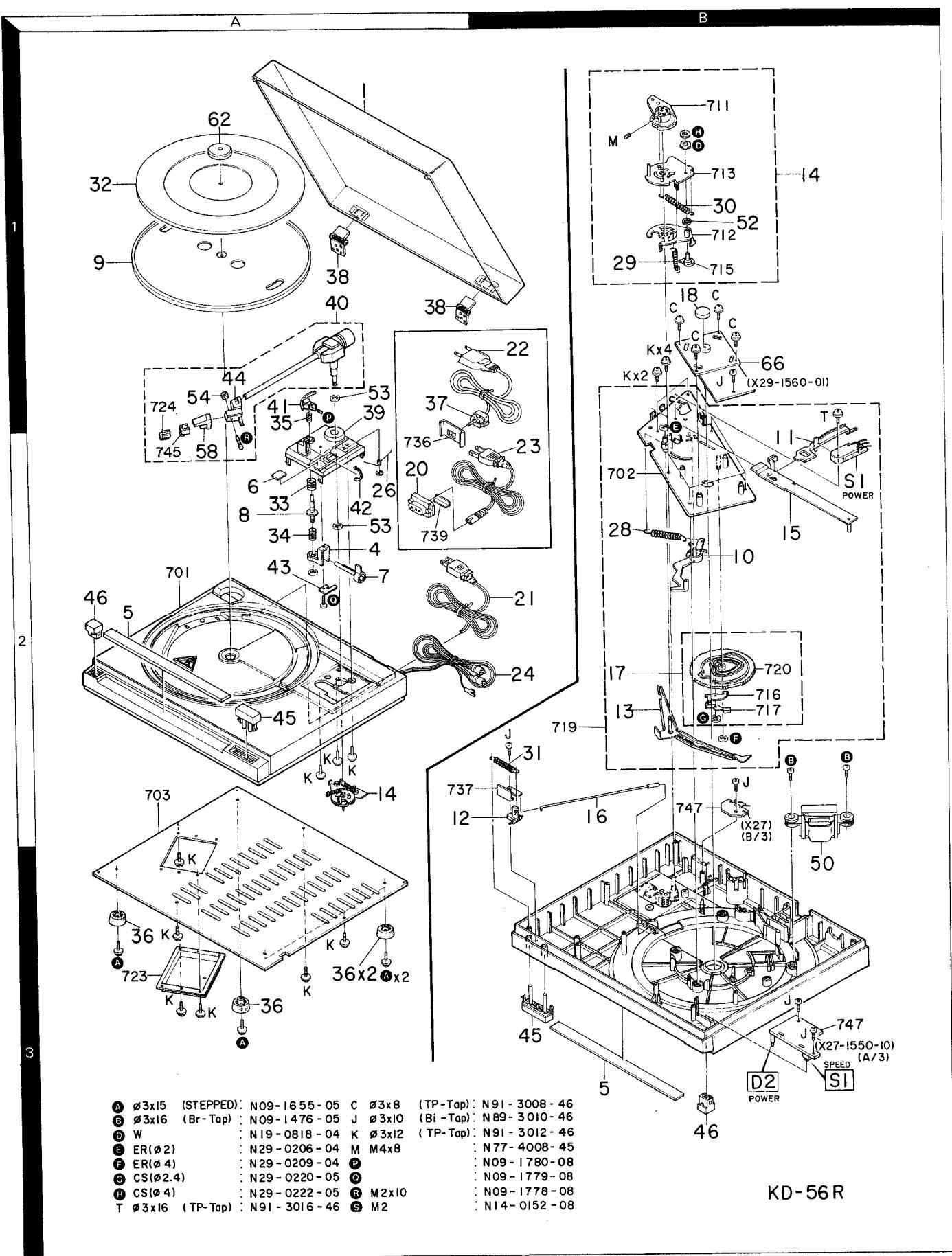
**CONTROL CIRCUIT (X29-1560-01)**  
Component side view





# KD-56R KD-56R

## EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

## PARTS LIST

\* New Parts

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Telle ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
KD-56R						
1	1A		A53-0076-02	DUST COVER ASSY	KP1M1	
1	1A		A53-0076-02	DUST COVER ASSY	T1E1K2	
4	2A	*	A15-0054-08	FRAME (TONEARM BASE)		
5	2A, 3B	*	B03-2289-03	DRESSING PLATE	KK1K2	
6	2A	*	B03-2284-08	DRESSING PLATE (TONEARM BASE)	U1UE1	
-	-		B46-0092-03	WARRANTY CARD	U1UE1	
-	-		B46-0094-03	WARRANTY CARD		
-	-		B46-0095-03	WARRANTY CARD		
-	-		B46-0121-03	WARRANTY CARD	P1	
-	-		B46-0122-13	WARRANTY CARD	E1	
-	-		B46-0143-03	WARRANTY CARD	T1	
-	-	*	B50-6704-00	INSTRUCTION MANUAL(ENGLISH)	P1M1E1	
-	-	*	B50-6705-00	INSTRUCTION MANUAL(FRENCH)		
-	-	*	B50-6706-00	INSTRUCTION MANUAL(SPANISH)	M1	
-	-	*	B50-6707-00	INSTRUCTION MANUAL(ARABIC)	M1	
-	-	*	B50-6709-00	INSTRUCTION MANUAL(G,D,I)	E1	
-	-	*	B58-0223-04	CAUTION CARD (PRE-SET 120V)	U1	
-	-	*	B58-0269-04	CAUTION CARD	KK1K2	
-	-		B58-0513-04	CAUTION CARD (PRESET220-240)	UE1	
-	-		B59-0092-00	SERVICE DIRECTORY	U1UE1	
7	2A	*	D10-1911-08	LEVER (LIFTER)		
8	2A	*	D21-1325-08	SHAFT		
9	1A		D02-0043-35	TURNTABLE PLATTER		
10	2B		D10-1067-13	ARM		
11	2B		D10-1081-13	ARM		
12	2A		D10-1367-04	LEVER		
13	2B		D10-1388-03	ARM ASSY (CONNECT,R)		
14	2A, 1B	*	D10-1762-03	ARM (RETURN B ASSY)		
15	2B		D10-1394-03	SLIDER ASSY		
16	2B		D10-1402-14	R&D ASSY		
17	2B		D13-0230-03	GEAR ASSY		
18	1B		D39-0180-04	DAMPER		
▲			E29-0309-05	WIRE CONNECTION CAP	KP1T1	
▲			E29-0309-05	WIRE CONNECTION CAP	E1K1K2	
▲			E03-0102-25	AC INLET	U1M1	
▲			E03-0102-25	AC INLET	UE1	
▲			E30-0181-05	AC POWER CORD	KP1K1	
▲			E30-0181-05	AC POWER CORD	K2	
▲			E30-0459-05	AC POWER CORD	E1	
▲			E30-1416-05	AC POWER CORD	T1	
▲			E30-1305-15	AC POWER CORD (INLET)	U1M1	
▲			E30-1305-15	AC POWER CORD (INLET)	UE1	
24	2B		E30-1472-05	AUDIO CORD	P1U1M1	
24	2B		E30-1472-05	AUDIO CORD	UE1T1	
24	2B		E30-1472-05	AUDIO CORD	E1	
24	2B		E30-1473-05	AUDIO CORD	KK1K2	
26	2A	*	G01-2033-08	TORSION COIL SPRING		
28	2B		G01-1768-04	EXTENSION SPRING		
29	1B		G01-1165-04	EXTENSION SPRING		
30	1B		G01-1169-04	EXTENSION SPRING		
31	2B		G01-1595-04	EXTENSION SPRING		

E: Scandinavia & Europe

K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

KD-56R : K2,P1,M1,T1,E1

KD-56RC : K

KD-56RCL : K1,U1,UE1

△ indicates safety critical components.

# KD-56R KD-56R

## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti- nation 仕向	Re- marks 備考
A 50	3B	*	L01-7752-05	POWER TRANSFORMER	T1E1	
A 50	3B	*	L01-7754-05	POWER TRANSFORMER	U1M1	
A 50	3B	*	L01-7754-05	POWER TRANSFORMER	UE1	
52	1B		N14-0074-05	RETAINING RING		
53	1A, 2A	*	N29-0244-08	CANOE CLIP	KP1U1	
54	1A	N14-0177-08	HEXAGON NUT	M1UE1		
54	1A	N14-0177-08	HEXAGON NUT	T1E1K1		
54	1A	N14-0177-08	HEXAGON NUT			
A	3A	N09-1655-05	STEPPED SCREW (M3x15)			
B	2B	N09-1476-05	MACHINE SCREW (Ø3x16)			
D	1B	N19-0818-04	CORRUGATED WASHER			
E	2B	N29-0206-04	RETAINING RING (Ø2)			
F	2B	N29-0209-04	RETAINING RING (Ø4)			
G	2B	N29-0220-05	RETAINING RING (Ø2.4)			
H	1B	N29-0222-05	RETAINING RING (Ø4)			
P	1A	N09-1780-08	MACHINE SCREW	KP1U1		
Q	2A	N09-1779-08	MACHINE SCREW			
R	2A	N09-1778-08	MACHINE SCREW	M1UE1		
R	2A	N09-1778-08	MACHINE SCREW	T1E1K1		
A S1	2B	S50-1015-05	MICRO SWITCH			
A 58	1A	T21-0138-05	PICKUP CARTRIDGE	KP1U1		
A 58	1A	T21-0138-05	PICKUP CARTRIDGE	M1UE1		
A 58	1A	T21-0138-05	PICKUP CARTRIDGE	T1E1K1		
62	1A	WD1-0329-04	EP ADAPTER			
66	1B	X92-1050-02	MOTOR ASSY			

### POWER SUPPLY UNIT (X27-1550-10)

D2	3B	B30-0483-05	LED(SLP-170B) POWER		
C1 C2 ,3	3B	CK45FF1H103Z CE04KW1E471M	CERAMIC 0.010UF Z ELECTRO 470UF 25WV		
S1	3B	S40-2330-05	PUSH SWITCH (SPEED)		
D1		WD2	DIODE		

### CONTROL CIRCUIT UNIT (X29-1560-01)

C1		CE04FW1HR22M	ELECTRO 0.22UF 50WV		
C2		CF92FV1H223J	MF 0.022UF J		
C3		CE04FW1C100M	ELECTRO 10UF 16WV		
C4		CF92FV1H223J	MF 0.022UF J		
C5		CK45FF1H103Z	CERAMIC 0.010UF Z		
C6		CF92FV1H103J	MF 0.010UF J		
C7		CQ93HP24473J	MYLAR 0.047UF J		
C8		C90-1350-05	NP-ELEC 2.2UF 50WV		
C9		CE04FW1C100M	ELECTRO 10UF 16WV		
C11		CE04FW1C330M	ELECTRO 33UF 16WV		
C13 ,14		CK45FF1H473Z	CERAMIC 0.047UF Z		
VR1 ,2		R12-5305-05	TRIMMING POT. (200K) SPEED		
H1 ,2		T95-0015-15	HALL ELEMENT (H-300B)		
D1	*	RD5.1(B2)	ZENER DIODE		

KD-56R : K2,P1,M1,T1,E1

KD-56RC : K

KD-56RCL : K1,U1,UE1

E: Scandinavia & Europe

K: USA

P: Canada

U: PX(Far East, Hawaii)

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32	1A		G16-0343-12	TURNTABLE SHEET	P1U1M1	
32	1A		G16-0343-12	TURNTABLE SHEET	UE1T1	
32	1A		G16-0343-12	TURNTABLE SHEET	E1	
32	1A		G16-0356-02	TURNTABLE SHEET	KK1K2	
33	2A		G01-2031-08	COMPRESSION SPRING		
34	2A	*	G01-2032-08	COMPRESSION SPRING		
-	-	*	H01-7507-04	ITEM CARTON CASE	P1M1T1	
-	-	*	H01-7507-04	ITEM CARTON CASE	E1K2	
-	-	*	H01-7509-04	ITEM CARTON CASE	K1	
-	-	*	H01-7510-04	ITEM CARTON CASE	U1UE1	
-	-	*	H01-7511-04	ITEM CARTON CASE	K	
-	-		H10-3308-12	POLYSTYRENE FOAMED FIXTURE	U1UE1	
-	-		H10-3308-12	POLYSTYRENE FOAMED FIXTURE	K1	
-	-		H10-3309-02	POLYSTYRENE FOAMED FIXTURE	U1UE1	
-	-		H10-3309-02	POLYSTYRENE FOAMED FIXTURE	K1	
-	-		H10-3310-12	POLYSTYRENE FOAMED FIXTURE	KP1M1	
-	-		H10-3310-12	POLYSTYRENE FOAMED FIXTURE	T1E1K2	
-	-		H10-3311-02	POLYSTYRENE FOAMED FIXTURE	KP1M1	
-	-	*	H10-3443-03	POLYSTYRENE FOAMED FIXTURE	T1E1K2	
-	-	*	H10-3443-03	POLYSTYRENE FOAMED FIXTURE	KP1U1	
-	-	*	H10-3443-03	POLYSTYRENE FOAMED FIXTURE	M1UE1	
-	-	*	H12-0191-14	PACKING FIXTURE	T1E1K1	
-	-	*	H12-0191-14	PACKING FIXTURE	KP1M1	
-	-	*	H12-1160-04	PACKING FIXTURE	T1E1K2	
-	-	*	H25-0029-04	PROTECTION BAG (60X110)	KP1M1	
-	-		H25-0029-04	PROTECTION BAG (60X110)	T1E1K2	
-	-		H25-0225-04	PROTECTION BAG (850X450X0.03)	KP1U1	
-	-		H25-0225-04	PROTECTION BAG (850X450X0.03)	UE1T1	
-	-		H25-0225-04	PROTECTION BAG (850X450X0.03)	E1K1K2	
-	-		H25-0232-04	PROTECTION BAG (235X350X0.03)		
-	-		H25-0625-04	PROTECTION BAG (620X740X0.03)	M1	
36	3A		J02-0145-14	INSULATOR	P1T1E1	
37	1A		J42-0083-05	POWER CORD BUSHING	KP1M1	
38	1A		J50-0103-15	HINGE	T1E1K2	
39	2A		J50-0103-15	HINGE		
39	2A		J19-2773-08	TONEARM BASE ASSY		
40	1A		J91-0323-08	PICKUP ARM	KP1U1	
40	1A		J91-0323-08	PICKUP ARM	M1UE1	
40	1A		J91-0323-08	PICKUP ARM	T1E1K1	
40	1A		J91-0327-08	PICKUP ARM	K2	
41	1A		J99-0036-08	TONEARM LIFTER		
42	2A		J19-2771-08	REST HOOK		
43	2A		J21-3969-08	MOUNTING HARDWARE		
44	1A		J92-0096-08	SHELL		
-	-		J61-0054-05	WIRE BAND		
-	-		J61-0307-05	WIRE BAND	KP1T1	
-	-		J61-0307-05	WIRE BAND	E1K1K2	
45	2A, 3B		K29-2050-14	KNOB ASSY(BUTTON)PLAY/CUT		
46	2A, 3B		K29-2080-04	KNOB ASSY(BUTTON)POWER		
50	3B	*	L01-7751-05	POWER TRANSFORMER	KP1K1	
50	3B	*	L01-7751-05	POWER TRANSFORMER	K2	

KD-56R : K2,P1,M1,T1,E1

# KD-56R KD-56R

## PARTS LIST

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Ref. No. 参照番号	Address 位 置	New Parts 新 部品番号	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
IC1			BA6303	IC(FG TYPE SPEED CONTROLLER)		
IC2			AN6556	IC(BP AMP X2)		
Q1			2SC1685(R,S)	TRANSISTOR		
Q1			2SC945(A)(Q,P)	TRANSISTOR		
Q3 ,4			2SC3666	TRANSISTOR		
Q5 ,6			2SA1426	TRANSISTOR		

KD-56R : K2,P1,M1,T1,E1  
 KD-56RC : K  
 KD-56RCL : K1,U1,UE1  
 △ indicates safety critical components.

## SPECIFICATIONS

### Motor and turntable

Drive System.....Direct-Drive System  
 Motor.....Coreless and slotless FG servo motor

Turntable Platter.....30.0 cm (11-13/16")  
 Diameter

Speeds.....0.43 kg (0.95 lb) Weight  
 2 Speeds, 33-1/3 and  
 45 rpm.

Wow & Flutter.....0.028% (WRMS)  
 0.05% (DIN)

S/N (Rumble).....DIN: 43 dB (DIN A)  
 DIN: 74 dB (DIN B)

### Tonearm

Type.....Static-Balanced Straight  
 Tonearm

Effective Arm Length.....225 mm (8-7/8")

Over-Hang.....15 mm (9/16")

Tracking Error.....+2°50' ~ -2°

Usable Cartridge.....T4P Type

### Cartridge

Furnished Cartridge.....MM cartridge T4P (V-67B)

Frequency Response.....20~20,000 Hz

Channel Separation.....Better than 22 dB  
 (1,000 Hz)

Output Voltage.....2.5 mV  
 (1,000 Hz, 5 cm/sec.)

Output Balance .....2.0 dB  
 (1,000 Hz, 5 cm/sec.)

Load Impedance.....47 k ohms

Stylus.....0.6 mil diamond

Optimum Tracking Force.....1.25 grams

Compliance.....7×10<sup>-6</sup> cm/dyne

Replacement Stylus.....N-67B

### Miscellaneous

Power Requirements.....AC 120 V, 60 Hz (U.S.A.  
 and Canada Models)

AC 220 V, 50 Hz (European  
 Models)

AC 240 V, 50 Hz (U.K.  
 Models)

AC 120 V/220-240V,  
 50/60 Hz (Others)

Power Consumption.....8 watts

Dimensions.....W 420 mm (16-17/32")  
 H 118 mm (4-5/8")  
 D 365 mm (14-3/8")

Weight (Net).....4.1 kg (9.02 lb)

Supplied Accessories.....EP adapter

### Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.

### Model name and its accessories list

Model name	Accessories	Cartridge	Dust cover
KD-56R K2 type	X	○	
KD-56R P1,M1,T1,E1 type	○	○	
KD-55RC K type	○	○	
KD-56RCL K1,U1,UE1 type	○	X	

○ : including, X : not including

### Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

## KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD ELECTRONICS

1315 E. Watsoncenter Rd, Carson, California 90745;  
 75 Seaview Drive, Secaucus, New Jersey 07094, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. Box 1075 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

Hi-Fi-VIDEO-CAR Hi-Fi

13, Boulevard Ney, 75018 Paris, France

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KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

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KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 5th Floor, 34-37, Connaught Road, Central, Hong Kong